

FLUJO DE CAJA PARA PROYECTOS DE AGPE SIN ENTREGA DE EXCEDENTES.

|                                                                                 |                |
|---------------------------------------------------------------------------------|----------------|
| La entidad Territorial deberá pagar la Tarifa de Energía y la Tasa de Descuento |                |
| Potencia Requerida AC (kW)                                                      | 178.3          |
| Tamaño (Wp)                                                                     | 231.8          |
| Departamento de Localización                                                    | Córdoba        |
| Energía anual (kWh/año)                                                         | 339,082        |
| Energía Consumida En Factura o Consumo de Subistencia (kWh/año)                 | 3,519,360      |
| Capex en COP                                                                    | \$ 646,482,581 |
| Inversión INSMI COP                                                             | \$ 646,482,581 |
| Costo anual mantenimiento                                                       | \$ 14,162,886  |
| Valor Ute del Proyecto                                                          | 26             |
| Tasa Social de descuento                                                        | 9.00%          |
| Pérdida en productividad anual paneles                                          | 9.50%          |

El incremento diferencial el valor kWh/año, este cálculo de pérdidas toma en el valor de cada factura de los 12 meses anteriores al momento de la reconstrucción

Valor por kWh

Este valor es tomado del Anexo 2 de presupuesto realizado por el grupo de Registros

|                                                                              |             |          |
|------------------------------------------------------------------------------|-------------|----------|
| Producción                                                                   | \$ 1,464.2  | (KWH/WP) |
| Excedentes de Red                                                            | Cu BW/H     |          |
| AFRMA GRUPO EPM 3                                                            | \$ 1,078.24 |          |
| Los usuarios beneficiarios del Proyecto se encuentran a más de 1000 m.s.n.m. | Si          | 130      |
| Nº de Usuarios                                                               | 2256        |          |
| Consumo proyecto productible                                                 |             | 0        |

| Proyección de Ingresos y Gastos            | 1             | 2             | 3             | 4             | 5              | 6              | 7              | 8              | 9              | 10             | 11             | 12             | 13             | 14             | 15             | 16             | 17             | 18             | 19             | 20             | 21             | 22             | 23             | 24             | 25             |
|--------------------------------------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| ICP                                        | 178           | 232           | 237           | 248           | 259            | 269            | 278            | 287            | 295            | 303            | 311            | 317            | 324            | 330            | 337            | 343            | 349            | 354            | 359            | 364            | 369            | 374            | 379            | 384            | 389            |
| Energía año                                | 3,519,360     | 3,500,004     | 3,480,754     | 3,461,609     | 3,442,571      | 3,423,636      | 3,404,806      | 3,386,080      | 3,367,456      | 3,348,935      | 3,330,516      | 3,312,198      | 3,293,981      | 3,275,865      | 3,257,847      | 3,239,929      | 3,222,109      | 3,204,388      | 3,186,764      | 3,169,237      | 3,151,806      | 3,134,471      | 3,117,231      | 3,100,086      | 3,083,038      |
| Tarifa Red AFN proyectada \$/kWh (CUB)     | 1078          | 1130          | 1175          | 1222          | 1269           | 1318           | 1369           | 1420           | 1468           | 1517           | 1567           | 1614           | 1670           | 1729           | 1789           | 1852           | 1917           | 1984           | 2053           | 2125           | 2198           | 2276           | 2356           | 2439           | 2524           |
| G                                          | 389           | 384           | 377           | 369           | 361            | 352            | 343            | 334            | 325            | 315            | 305            | 295            | 285            | 275            | 265            | 255            | 245            | 235            | 225            | 215            | 205            | 195            | 185            | 175            | 165            |
| Energía Estimada Para Venta                | 3180778       | 3,162,786     | 3,145,361     | 3,128,081     | 3,110,887      | 3,093,777      | 3,076,761      | 3,059,839      | 3,043,008      | 3,026,273      | 3,009,629      | 2,993,076      | 2,976,614      | 2,960,242      | 2,943,961      | 2,927,769      | 2,911,667      | 2,895,652      | 2,879,726      | 2,863,888      | 2,848,136      | 2,832,472      | 2,816,893      | 2,801,400      | 2,786,002      |
| Valor Reinversión de Excedentes de Energía | 0             | 0             | 0             | 0             | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| Cuentas a cobrar                           | (646,482,581) |               |               |               |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Alto de energía                            | 3,794,714,732 | 3,794,988,268 | 3,795,138,441 | 3,795,181,053 | 3,795,126,272  | 3,794,976,272  | 3,794,704,302  | 3,794,432,343  | 3,794,160,387  | 3,793,888,432  | 3,793,616,477  | 3,793,344,522  | 3,793,072,567  | 3,792,800,612  | 3,792,528,657  | 3,792,256,702  | 3,791,984,747  | 3,791,712,792  | 3,791,440,837  | 3,791,168,882  | 3,790,896,927  | 3,790,624,972  | 3,790,352,997  | 3,790,081,042  | 3,789,809,087  |
| Venta de Excedentes de Energía             |               |               |               |               |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Gastos mantenimiento                       | (14,162,886)  | (14,162,886)  | (14,162,886)  | (14,162,886)  | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   | (14,162,886)   |
| Energía absorbida a la red                 |               |               |               |               |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| Proyección Ingresos                        |               |               |               |               |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| ICP (CUB)                                  | 178.3         | 231.8         | 236.7         | 247.6         | 258.5          | 269.4          | 279.3          | 289.2          | 299.1          | 309.0          | 318.9          | 328.8          | 338.7          | 348.6          | 358.5          | 368.4          | 378.3          | 388.2          | 398.1          | 408.0          | 417.9          | 427.8          | 437.7          | 447.6          | 457.5          |
| VP IC                                      | (646,482,581) | 3,486,562,075 | 3,314,578,380 | 3,144,713,401 | 2,984,540,189  | 2,825,715,204  | 2,668,311,476  | 2,513,675,431  | 2,370,318,711  | 2,246,760,187  | 2,134,443,311  | 2,033,459,909  | 1,953,838,692  | 1,786,453,532  | 1,686,939,388  | 1,592,968,103  | 1,524,231,288  | 1,420,437,389  | 1,341,311,062  | 1,266,502,941  | 1,195,035,709  | 1,129,450,331  | 1,066,484,787  | 1,007,083,850  | 950,006,823    |
| IC Sumatoria                               | (646,482,581) | 3,486,562,075 | 3,314,578,380 | 3,144,713,401 | 2,984,540,189  | 2,825,715,204  | 2,668,311,476  | 2,513,675,431  | 2,370,318,711  | 2,246,760,187  | 2,134,443,311  | 2,033,459,909  | 1,953,838,692  | 1,786,453,532  | 1,686,939,388  | 1,592,968,103  | 1,524,231,288  | 1,420,437,389  | 1,341,311,062  | 1,266,502,941  | 1,195,035,709  | 1,129,450,331  | 1,066,484,787  | 1,007,083,850  | 950,006,823    |
| G Sumatoria                                | (646,482,581) | 3,486,562,075 | 3,314,578,380 | 3,144,713,401 | 2,984,540,189  | 2,825,715,204  | 2,668,311,476  | 2,513,675,431  | 2,370,318,711  | 2,246,760,187  | 2,134,443,311  | 2,033,459,909  | 1,953,838,692  | 1,786,453,532  | 1,686,939,388  | 1,592,968,103  | 1,524,231,288  | 1,420,437,389  | 1,341,311,062  | 1,266,502,941  | 1,195,035,709  | 1,129,450,331  | 1,066,484,787  | 1,007,083,850  | 950,006,823    |
| Tempo de recuperación                      | (646,482,581) | 2,830,879,495 | 6,134,657,774 | 9,279,323,125 | 12,364,311,938 | 15,090,026,582 | 17,758,338,038 | 20,278,013,469 | 22,651,332,180 | 24,904,111,937 | 27,018,553,448 | 29,001,995,555 | 30,851,834,237 | 32,570,288,170 | 34,167,227,568 | 35,654,426,958 | 37,044,426,958 | 38,354,884,337 | 39,604,175,399 | 40,812,787,749 | 41,989,831,448 | 43,138,210,773 | 44,264,707,086 | 45,381,290,917 | 46,486,773,125 |
|                                            |               | 2,226,171     | 2,346,883     | 2,467,700     | 2,582,731      | 2,697,426      | 2,811,402      | 2,924,148      | 3,036,149      | 3,146,959      | 3,256,184      | 3,364,384      | 3,471,202      | 3,577,268      | 3,682,351      | 3,786,145      | 3,888,143      | 3,988,843      | 4,087,651      | 4,185,071      | 4,280,605      | 4,374,742      | 4,466,986      | 4,557,831      | 4,647,876      |

| Indicadores                   | Valor              | Si el proyecto es para usuarios, ingresar la cantidad de usuarios a atender por el proyecto. |
|-------------------------------|--------------------|----------------------------------------------------------------------------------------------|
| Alto de Energía ICOP          | \$ 140,389,579,700 |                                                                                              |
| ICP SIN HUNDIR INVERSION      | 585,040            |                                                                                              |
| ICP SIN HUNDIR INVERSION      | \$ 117,762,710,545 |                                                                                              |
| INVERSION INVERSION INVERSION | \$ 166,607,211,113 |                                                                                              |
| PAVBACK (afijos)              | RND                |                                                                                              |
| Alto de ICOP                  | 318,220,227        |                                                                                              |
| ICP SIN HUNDIR INVERSION      | 585                |                                                                                              |
| ICP SIN HUNDIR INVERSION      | 585                |                                                                                              |